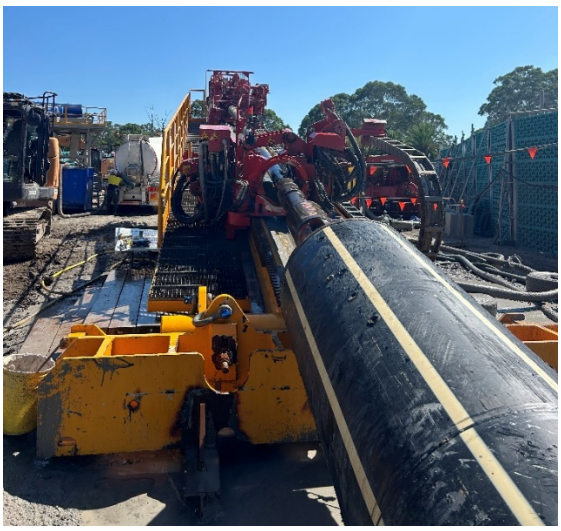
Kemps Creek Dual Pressure Main

OIL/GAS | **SEWER** | STORMWATER | POWER | WATER | TELCO

PROJECT OVERVIEW

UEA were engaged in 2024 by Quickway to deliver two significant underbores for the Kemps Creek Dual Pressure Main project. The overall project improved the wastewater services in the South West Growth Area (SWGA), one of the NSW State Government's three designated growth areas in South West Sydney. The horizontal direction drilling section of the project ties the pipeline in from Floribunda Road, passing underneath Kemps Creek to Gurner Avenue in Austral. The project spanned over 8 months, with practical completion reached on the 3rd of April 2025.



LOCATION
Kemps Creek, NSW

CLIENT
Quickway Constructions Pty Ltd
Sydney Water

PIPE
800mm PN20 PE100

GEOLOGY
Shale, Coal & Clay

LENGTH
2x 900m

TECHNIQUE
HDD

SCOPE OF WORKS

UEA's scope of works on the Kemps Creek Dual Pressure Main Project involved the development and execution of a suitable trenchless methodology to enable the pipeline to pass underneath Kemps Creek and environmentally protected areas.

Due to the unexpected ground conditions and large volume of ground water encountered, the methodology was revised following the completion of the first pilot bore. A drill rig spread was mobilised to the exit side of the project to facilitate the completion of the bore utilising a tail string to ensure control of the borehole was maintained. Due to the revised methodology, the need for a drilling fluid return line was removed. Two drilling fluid centrifuges were utilised on the project that assisted with controlling the unfavourable ground condition and aided in the drilling fluid chemistry staying within the design target ranges.

KEY PROJECT HIGHLIGHTS

- Successful installation of both bores with multiple tie-in welds.

- Pipe installed in compliance with Sydney Water's Civil Specification.
- Negotiated mixed ground conditions without fluid loss.
- Project delivered ahead of program.
- Innovative methodology to overcome unexpected ground conditions and excessive volumes of ground water.